

Amendments to the Claims:

Claims 1-34 Cancelled.

35. (Currently Amended) An immunogenic composition comprising a fusion protein comprising ~~an isolated polypeptide wherein the polypeptide comprises a member selected from the group consisting of~~

- (a) ~~an amino acid sequence which has at least 90% identity to SEQ ID NO:2 over the entire length of SEQ ID NO:2 and a fusion partner;~~
- (b) ~~an immunogenic fragment of the amino acid sequence of (a), wherein the immunogenic fragment is at least 90% identical to an aligned contiguous segment of SEQ ID NO:2; and~~
- (c) ~~an immunogenic fragment of the amino acid sequence of (a) that matches an aligned contiguous segment of SEQ ID NO:2 with no more than five single amino acid substitutions, deletions or additions,~~

wherein the immunogenic composition, when administered to a subject, induces an immune response that recognizes a polypeptide comprising ~~having~~ the sequence of SEQ ID NO:2.

36. (Currently Amended) The immunogenic composition of Claim 35 wherein the amino acid sequence comprises ~~has~~ at least 95% identity to SEQ ID NO:2 ~~or the aligned contiguous segment of SEQ ID NO:2.~~

37. (Currently Amended) The immunogenic composition of Claim 36 wherein the ~~polypeptide has the amino acid sequence of~~ is SEQ ID NO:2.

38. (Cancelled).

39. (Cancelled).

40. (Cancelled).

41. (Cancelled).
42. (Cancelled)
43. (Withdrawn): An isolated polynucleotide encoding an polypeptide of Claim 35.
44. (Withdrawn): An expression vector comprising the isolated polynucleotide of Claim 43.
45. (Withdrawn): A host cell transformed with the expression vector of Claim 44.
46. (Withdrawn): A process of producing an isolated polypeptide comprising (a) culturing the host cell of Claim 45 under conditions sufficient for the production of the encoded polypeptide and (b) recovering the polypeptide.
47. (Withdrawn): An immunogenic composition comprising the isolated polynucleotide of Claim 43 or an expression vector comprising the isolated polynucleotide, effective in a vaccinated mammal to express the polypeptide.
48. (Withdrawn): A live immunogenic composition comprising the isolated polynucleotide of Claim 43 or an expression vector comprising the isolated polynucleotide comprised within a microorganism effective itself or through its host to express the polypeptide.
49. (Withdrawn): An isolated polynucleotide segment comprising a polynucleotide sequence or the full complement of the entire length of the polynucleotide sequence, wherein the polynucleotide sequence is identical to SEQ ID NO:1 or 3 minus any terminal stop codon, except that, over the entire length corresponding to SEQ ID NO:1 or 3 minus any terminal stop codon, n_n nucleotides are substituted, inserted or deleted, wherein n_n satisfies the following expression

$$n_n \leq x_n - (x_n \bullet y)$$

wherein x_n is the total number of nucleotides in SEQ ID NO:1 or 3 minus any terminal stop codon, y is at least 0.90, and wherein any non-integer product of x_n and y is rounded down to the nearest integer before subtracting the product from x_n ; and wherein the polynucleotide sequence detects a polynucleotide of SEQ ID NO:1 or 3 minus any terminal stop codon.

50. (Withdrawn): The isolated polynucleotide of Claim 49 where y is at least 0.95.

51. (Withdrawn): An expression vector comprising the isolated polynucleotide of Claim 49 which codes for a polypeptide that, when administered to a mammal, induces an immune response that recognizes a polypeptide having the sequence of SEQ ID NO:2.

52. (Withdrawn): A host cell transformed with the isolated polynucleotide or an expression vector comprising the isolated polynucleotide of Claim 49.

53. (Withdrawn): A process of producing an isolated polypeptide comprising (a) culturing the host cell of Claim 52 under conditions sufficient for the production of the encoded polypeptide and (b) recovering the polypeptide.

54. (Cancelled).

55. (Currently Amended): The immunogenic composition of Claim ~~54~~35 further comprising an adjuvant.

56. (Previously Presented): The immunogenic composition of Claim 55 wherein the adjuvant induces a TH1-type response.

57. (Previously Presented): The immunogenic composition of Claim 55 the adjuvant is a member selected from the group consisting of 3D-MPL, QS21, a mixture of QS21 and cholesterol, and a CpG oligonucleotide.

58. (Withdrawn): A method for inducing an immune response in a mammal comprising administration of the polypeptide of Claim 35.

59. (Withdrawn): A method for screening to identify compounds which stimulate or which inhibit the function of the polypeptide of Claim 35 which comprises a method selected from the group consisting of:

- (a) measuring the binding of a candidate compound to the said polypeptide (or to the cells or membranes bearing the polypeptide) or a fusion protein thereof by means of a label directly or indirectly associated with the candidate compound;
- (b) measuring the binding of a candidate compound to the polypeptide (or to the cells or membranes bearing the polypeptide) or a fusion protein thereof in the presence of a labeled competitor;
- (c) testing whether the candidate compound results in a signal generated by activation or inhibition of the said polypeptide, using detection systems appropriate to the cells or cell membranes bearing the polypeptide;
- (d) mixing a candidate compound with a solution containing the polypeptide of Claim 34, to form a mixture, measuring activity of the polypeptide in the mixture, and comparing the activity of the mixture to a standard; or
- (e) detecting the effect of a candidate compound on the production of mRNA encoding said polypeptide and said polypeptide in cells.

60. (Withdrawn): A method for the treatment of a subject by immunoprophylaxis or therapy comprising *in vitro* induction of immune responses to a polypeptide of Claim 35, using *in vitro* incubation of the polypeptide with cells from the immune system of a mammal, and reinfusing these activated immune cells to the mammal for the treatment of disease.

61. (Withdrawn): A method as claimed in Claim 60 wherein the treatment is for ovarian or colon cancer.

62. (Withdrawn): A process for diagnosing a disease or a susceptibility to a disease in a subject related to expression or activity of the polypeptide of Claim 35 in a subject

comprising: analyzing for the presence or amount of said polypeptide expression in a sample derived from said subject.

63. (Withdrawn): The process of claim 62, wherein the disease is colon cancer.